प्रोस्थेटिक्स एवं ऑर्थोटिक्स विभाग

Department of Prosthetics and Orthotics

पैरामेडिकल एवं रिहैबिलीटेशन साइन्सेज संकाय

Faculty of Paramedical & Rehabilitation Sciences

डॉ. शकुन्तला मिश्रा राष्ट्रीय पुनर्वास विश्वविद्यालय, लखनऊ

Dr. Shakuntala Misra National Rehabilitation University

2nd INTERNAL ASSESMENT, 2025

Semester:- 2nd year

Course Name: - BPO

Paper Code:- 206

Paper Name: - Prosthetic Science II

Max Marks - 20

Time - 1 Hr. per hour extra time 20 min for V.I. & examinees with writer.

Instructions:

The question paper consists of three sections namely 1,2,3 All sections are compulsory.

Section 1- Each question carries 1 mark. All questions are compulsory.

Section 2 - Answer any 2 out of 3 given questions in maximum three hundred (120) words. Each question carries 4 marks.

Section 3 - Answer any 1 out of 2 given questions in maximum one hundred fifty (250) words. Each question carries 8 marks.

MCQs: **(4 X 1 marks each = 04 marks)**

a. The ischial containment socket differs from the quadrilateral socket by:
   i. Having a lower posterior wall
   ii. Eliminating ischial support
   iii. Providing better mediolateral stability
   iv. Allowing rotational movement of the femur

b. Which of these are used on uneven terrain?
   i. Constant friction knee
   ii. Stance phase control
   iii. Polycentric knee
   iv. Fluid control knee

c. The "TKA line" in transfemoral prosthetic alignment stands for:
   i. Tibial-Knee-Angle
   ii. Thigh-Knee-Ankle
   iii. Trochanter-Knee-Ankle
   iv. Transverse Knee Axis

d. Which gait deviation is commonly seen when the prosthetic knee is too stiff or the patient lacks confidence?
   i. Circumduction
   ii. Terminal swing impact
   iii. Drop-off
   iv. Pistoning

Write Short notes: (Answer any Two) **(2 X 4 marks each = 08 marks)**

A. Define MAS socket with diagram.

B. Describe the stump characteristics differences between Trans-Femoral and Through-Knee amputees.

C. Draw a labelled diagram of socket trimlines for quadrilateral socket also describe quadrilateral socket in brief.

Long Questions (Answer any One) **(1 X 8 marks each = 08 marks)**

A. Elaborate what is gait deviation also discuss the various gait deviations seen in case of transfemoral prosthesis users.

B. What is alignment? Explain the alignment procedure for a through knee prosthesis with suitable diagrams.